

Commissioner for Patents
Reply to Office Action of March 23, 2005
Page 3

Serial No.: 10/620,295

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claims 1-13 (Cancelled)

14. (New) A low-emissions combustion system for a gas turbine engine comprising:

- a Catalyst (CAT) combustion sub-system adapted to controllably generate combustion products under a lean premixed fuel/air condition in the presence of a catalyst, the CAT combustion sub-system communicating with a fuel injection sub-system and an air supply sub-system communicating with a compressor;
- a Dry-Low-Emissions (DLE) combustion sub-system adapted to controllably generate combustion products under a lean premixed fuel/air condition, the DLE combustion sub-system communicating with a fuel injection sub-system and an air supply sub-system communicating with said compressor;
- a combustor communicating with the DLE and CAT combustion sub-systems for delivering the combustion products in adequate inlet conditions to an annular turbine of the engine; and
- a thermal reactor disposed between the CAT combustion sub-system and the combustor, said communication between the CAT combustion sub-system and the combustor being provided at least partially by the thermal reactor, the DLE combustion sub-system communicating with the combustor independent of the thermal reactor.

Commissioner for Patents
Reply to Office Action of March 23, 2005
Page 4

Serial No.: 10/620,295

15. (New) The low-emissions combustion system of claim 1, wherein a gas path is defined which includes sequentially the CAT combustion sub-system, the thermal reactor and the combustor, and wherein the DLE combustion sub-system communicates with the gas path downstream of the thermal reactor.
16. (New) The low-emissions combustion system of claim 1, wherein the thermal reactor and the combustor are distinct from one another.
17. (New) The low-emissions combustion system of claim 1 further comprising by-pass means for compressor air to controllably by-pass the DLE and CAT combustion sub-systems to permit control of a fuel-to-air ratio entering the DLE and CAT combustion sub-systems.